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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,430	09/07/2000	HIDEKI NAGATA	15162/02430	1547

24367 7590 08/04/2003

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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 08/04/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/657,430

Applicant(s)

NAGATA ET AL.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This application has been examined. Claims 1-20 are pending. The examination results are as following.

1. A Notice of Draftsperson's Patent Drawing Review has been considered when the Application is in condition for allowability.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 9-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechner (US patent 6,190,1720) in view of Suzuki et al. (US patent 6,195,068).
4. Regarding claim 1, Lechner discloses in figures 1 and 4 that an image display system (10) comprising at least two screen (14, 16, see figure 4) onto images are projected; at least one display device (28) for display the images that are to be projected onto the screens (14, 16, 18) (see column 8, lines 39-47), a total number of display devices being smaller than a total number of screens (see column 8, lines 15-22, because the width of the displayed video image on each side screen is less than the height of displayed video image); and at least one projection optical

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system (see figure 9) for projecting the images displayed on the display device onto the screens (12, see figure 9, column 11, lines 51-67).

5. Regarding claims 2-4, Lechner discloses in figures 6-9 that an image display system, wherein the projection optical system (28) includes a mirror (42) that reflects the images from the display device toward the screen (see figure 6-8); the display device displays in different orientations the images projected by way of the mirror and the images projected not by way of the mirror (see figures 6-8, column 7, lines 59-67, because the screens 14, 16 has different direction); and wherein the screens (14, 16, 18) form inner wall faces of an observation room for housing an observer (see figure 5).

6. Regarding claims 5-6, Lechner discloses in figures 4-5 that wherein the display device is arranged outside the observation room (see figure 4); and wherein a total number of projection optical system (28) is equal to the total number of the display devices (12) (see figure 4).

7. Regarding claims 9-10, Lechner discloses in figure 5 that wherein a total number of projection optical system (28) is equal to the number of the screen (12) (see figure 4); and wherein the display device displays simultaneously the images projected onto the screen (see figure 5).

8. Regarding claim 11, Lechner discloses figures 1 and 4-5 that a method of building image display system or comprising at least two screen (14, 16) onto images are projected; at least one display device (12) for display the images that are to be projected onto the screens (see column 8,

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lines 39-47), a total number of display devices being smaller than a total number of screens (see column 8, lines 15-22, because the width of the displayed video image on each side screen is less than the height of displayed video image); and a step of installing at least one projection optical system (28) for projecting the images displayed on the display device onto the screens (12, 14, 16, see figure 1, column 8, lines 52-55); and a step of projecting the images displayed on the display device through the projection optical system onto the screens (see figure 5).

9. Regarding claims 12-14, Lechner discloses in figures 6-8 that a method of building an image display system, wherein the projection optical system (28) includes a mirror (42) that reflects the images from the display device toward the screen (see figure 6-8); the display device displays in different orientations the images projected by way of the mirror and the images projected not by way of the mirror (see figures 6-8, column 7, lines 59-67, because the screens 14, 16 has different direction); and wherein the screens (14, 16, 18) form inner wall faces of an observation room for housing an observer (see figure 5).

10. Regarding claims 19-20, Lechner discloses a method of building an image display system in figure 5 that wherein a total number of projection optical system (28) is equal to the number of the screen (12) (see figure 4); and wherein the display device displays simultaneously the images projected onto the screen (see figure 5).

From the claims as discussed above, Lechner does not disclose the images projected onto two at least two screens are different. Lechner only does disclose in figure 4 an image generator (26) projected onto the two screen are different (14, 16, because the size of screens 14 and 16 are

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different, see column 8, lines 9-36). Suzuki et al. disclose in figure 13 an image display system comprising a projector (100) connected by a computer (10) having two images (102, 104) are different onto the screen (15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the two images (102, 104) as taught by Suzuki et al. onto the two screens are different (14, 16) are different of Lechner because this would provide an image display system in which a projector is used as a display apparatus, and the two images are transferred from a personal computer and can be displayed at a high quality on a screen by using individual display panels (see column 3, lines 58-63).

11. Claims 7-8 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechner (US patent 6,190,172) in view of Suzuki et al. (US patent 6,195,068) as applied to claims 1 and 11 above in view of Yamazaki et al. (US patent 6,377,230).

Regarding claims 8 and 18, Lechner discloses in figures 1 and 4-5 that an image display system or comprising at least two screen (14, 16) onto images are projected; at least one display device (28) for display the images that are to be projected onto the screens (see column 8, lines 39-47), a total number of display devices being smaller than a total number of screens (see column 8, lines 15-22, because the width of the displayed video image on each side screen is less than the height of displayed video image); and at least one projection optical system (28) for projecting the images displayed on the display device onto the screens (14, 16, see figure 1, column 8, lines 52-55. Suzuki et al. disclose a projector is projected onto the two images are different. However, Lechner and Suzuki et al. do not disclose a projection optical system includes a shutter that is opened and closed of the images displayed on the display device.

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Yamazaki discloses a liquid crystal shutters of a-glass to open and close of the images displayed on the display device (see column 11, lines 37-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the liquid crystal shutters of a-glass to open and close of the images displayed on the display device as taught by Yamazaki into the display system of Lencher and Suzuki et al. because this would help the user open or close of the images displayed on the display at the same time.

12. Regarding claims 7 and 17 are pending claims 1 and 11, and are rejected on the same reasons set forth in claims 1 and 11. Furthermore, Lechner discloses the display device or method of building an image display system that wherein in the step of installing the display device, wherein the display device is arranged outside the observation room (see figure 4); and wherein a total number of projection optical system (28) is equal to the total number of the display devices (12) (see figure 5). Suzuki et al. disclose a projector is projected onto the two images are different. However, Lechner and Suzuki et al. do not disclose the display device displays on a time-division basis the images to be projected onto the screens. Yamazaki et al. disclose the displaying different images with time-division of two or more different three-dimensional images (see column 32, lines 6-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the displaying different images with time-division of two or more different three-dimensional images as taught by Yamazaki et al. into the device of Lechner and Suzuki et al. for producing the claimed invention because this would provide a plurality of information simultaneously using an identical screen and allow a plurality of image information independently, and so on.

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Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessfully, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen
July 16, 2003



**RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**